

ABSTRACT OF THE DISCLOSURE

A bumping process, which is a method of forming a plurality of bumps over a wafer, is provided. The wafer has an active surface having a passivation layer and a plurality of bonding pads thereon. The passivation layer exposes the bonding pads on the active surface. An adhesion layer is formed over the active surface of the wafer covering both the bonding pads and the passivation layer. A metallic layer is formed over the adhesion layer. The adhesion layer and the metallic layer are patterned so that the adhesion layer and the metallic layer remain on top of the bonding pads. A photoresist layer is formed on the active surface of the wafer. The photoresist layer has a plurality of openings that exposes the metallic layer. Next, solder balls are disposed into each opening and melted partially to bond to the metallic layer temporarily by performing a heating process simultaneously. Then, a process of disposing the flux material in the openings to cover the surfaces of the solder balls is performed. Finally, a reflow process is carried out so that the solder balls bonds with the metallic layer securely and the photoresist layer is removed.